

Release Notes

MAG v3.5.0

Updates

1. Addition of HRRR model
 - a. hourly products:
 - i. precip_p01
 - ii. precip_rate
 - iii. 1000_500_thick
 - iv. 1000_850_thick
 - v. 850_700_thick
 - vi. 500_vort_ht
 - vii. 700_rh_ht
 - viii. 500_temp_ht
 - ix. 850_temp_ht
 - x. 925_temp_wnd
 - xi. cape_cin
 - xii. helicity
 - xiii. 10m_wnd
 - xiv. sim_radar_max
 - xv. vis
 - b. subhourly products:
 - i. 2m_temp_10m_wnd
 - ii. 2m_dewp_10m_wnd
 - iii. 10m_wnd_sfc_gust
 - iv. precip_type
 - v. sim_radar
 - c. ecFlow updates for HRRR:
 - i. mag_processor/hrrr contains two processes:
 - mag_hrrr_processor - creates the hourly products
 - mag_hrrrsubh_processor - creates the sub-hourly products
 - ii. mag_send2web/hrrr - contains one process:
 - ecmag_sync_hrrr, triggered by event from mag_hrrr_processor

- d. JSNDMAG2WEB has been updated with some HRRR-specific code to ensure that both hrrr-subh and hrrr have completed before removing the “go” files and exiting.
 - e. web tier:
 - i. Updates to MAG.xml to define HRRR
 - ii. Updates to web code to display subhourly times if forecast-mins are defined in MAG.xml
2. The skewt processing was updated to remove needless re-processing of each skewt area and to overlay the noaa logo on each skewt gif. Replaced make_all_skewt.pl with make_skewt.pl, replaced skewt_pages.sh with skewt_page.sh, and updated skewt.sh to overlay the noaa logo.
3. MAG jobs and ecFlow suite changes:
- a. Copied ecFlow structure from production. (Note that job scripts now access version from file \$BASE_DIR/nw\${envir}/versions/mag.ver)

mag_processor (processing jobs):

- i. GFS → mag_gfs_processor
- ii. RAP → mag_rap_processor
- iii. HRRR → mag_hrrr_processor, mag_hrrrsubh_processor
- iv. GEFS → mag_gefs_mnsprd_processor, mag_gefs_spag_processor
- v. NAM → mag_nam_processor, mag_nam_sim_radar_processor, mag_nam_hires_processor
- vi. RTMA → mag_rtma_processor, mag_rtma_guam_processor
- vii. SREF → mag_sref_processor
- viii. WAVE → mag_wave_processor, mag_wave_wna_processor, mag_wave_enp_processor
- ix. HIRESW → mag_hiresw_arw_conus_processor, mag_hiresw_arw_ak_processor, mag_hiresw_arw_pr_processor, mag_hiresw_nmmb_conus_processor, mag_hiresw_nmmb_ak_processor, mag_hiresw_nmmb_pr_processor
- x. NAEFS → mag_naefs_processor
- xi. HWRF → mag_hwrf_full_processor, mag_hwrf_nested_processor

- xii. GHM → mag_ghm_full_processor, mag_ghm_nested_processor
- xiii. POLAR → mag_polar_processor
- xiv. UAIR → mag_uair_processor
- xv. SKWET → mag_skewt

b. mag_send2web (transfer jobs):

- i. GFS → ecmag_sync_gfs
- ii. RAP → ecmag_sync_rap
- iii. HRRR → ecmag_sync_hrrr
- iv. GEFS → ecmag_sync_msprd and ecmag_sync_spag
- v. NAM → ecmag_sync_nam and ecmag_sync_nam_hires
- vi. RTMA → ecmag_sync_rtma and ecmag_sync_rtma_guam
- vii. SREF → ecmag_sync_sref
- viii. WAVE → ecmag_sync_wave, ecmag_sync_wave_wna and ecmag_sync_wave_enp
- ix. HIRESW → ecmag_sync_hireswarw and ecmag_sync_hiresw_nmmb
- x. NAEFS → ecmag_sync_naefs
- xi. HWRF → ecmag_sync_hwrf_full and ecmag_sync_hwrf_nested
- xii. GHM → ecmag_sync_ghm_full and ecmag_sync_ghm_nested
- xiii. POLAR → ecmag_sync_polar
- xiv. UAIR → ecmag_sync_uair
- xv. SKWET → ecmag_sync_skewt

WCOSS updates

File changed	Update #
make_all_skewt.pl	2

make_skewt.pl	2
skewt_pages.sh	2
skewt_page.sh	2
skewt.sh	2
hrrr.sh	1
JSNDMAG2WEB	1
MAG_sync_table.tbl	1
MAG.xml	1,2
versions/mag.ver	3
mag/mag_processor/skewt/mag_skewt_processor.ecf mag/mag_processor/sref/mag_sref_processor.ecf mag/mag_processor/hiresw/mag_hiresw_nmmb_pr_processor.ecf mag/mag_processor/hiresw/mag_hiresw_arw_pr_processor.ecf mag/mag_processor/hiresw/mag_hiresw_arw_conus_processor.ecf mag/mag_processor/hiresw/mag_hiresw_nmmb_conus_processor.ecf mag/mag_processor/hiresw/mag_hiresw_arw_ak_processor.ecf mag/mag_processor/hiresw/mag_hiresw_nmmb_ak_processor.ecf mag/mag_processor/naefs/mag_naefs_processor.ecf mag/mag_processor/rtma/mag_rtma_guam_processor.ecf mag/mag_processor/rtma/mag_rtma_processor.ecf mag/mag_processor/uair/mag_uair_processor.ecf mag/mag_processor/rap/mag_rap_processor.ecf mag/mag_processor/polar/mag_polar_processor.ecf mag/mag_processor/ghm/mag_ghm_nested_processor.ecf mag/mag_processor/ghm/mag_ghm_full_processor.ecf mag/mag_processor/gefs/mag_gefs_mnsprd_processor.ecf mag/mag_processor/gefs/mag_gefs_spag_processor.ecf mag/mag_processor/hwrf/mag_hwrf_full_processor.ecf mag/mag_processor/hwrf/mag_hwrf_nested_processor.ecf mag/mag_processor/hrrr/mag_hrrr_processor.ecf mag/mag_processor/hrrr/mag_hrrrsubh_processor.ecf mag/mag_processor/nam/mag_nam_processor.ecf mag/mag_processor/nam/mag_nam_hires_processor.ecf mag/mag_processor/nam/mag_nam_sim_radar_processor.ecf mag/mag_processor/wave/mag_wave_processor.ecf mag/mag_processor/wave/mag_wave_wna_processor.ecf mag/mag_processor/wave/mag_wave_enp_processor.ecf mag/mag_processor/gfs/mag_gfs_processor.ecf mag/mag_send2web/skewt/ecmag_sync_skewt.ecf	3

mag/mag_send2web/sref/ecmag_sync_sref.ecf mag/mag_send2web/hiresw/ecmag_sync_hiresw_arw.ecf mag/mag_send2web/hiresw/ecmag_sync_hiresw_nmmb.ecf mag/mag_send2web/naefs/ecmag_sync_naefs.ecf mag/mag_send2web/rtma/ecmag_sync_rtma.ecf mag/mag_send2web/rtma/ecmag_sync_rtma_guam.ecf mag/mag_send2web/uair/ecmag_sync_uair.ecf mag/mag_send2web/rap/ecmag_sync_rap.ecf mag/mag_send2web/polar/ecmag_sync_polar.ecf mag/mag_send2web/ghm/ecmag_sync_ghm_nested.ecf mag/mag_send2web/ghm/ecmag_sync_ghm_full.ecf mag/mag_send2web/gefs/ecmag_sync_gefs_spag.ecf mag/mag_send2web/gefs/ecmag_sync_gefs_msprd.ecf mag/mag_send2web/hwrf/ecmag_sync_hwrf_nested.ecf mag/mag_send2web/hwrf/ecmag_sync_hwrf_full.ecf mag/mag_send2web/hrrr/ecmag_sync_hrrr.ecf mag/mag_send2web/nam/ecmag_sync_nam_radar.ecf mag/mag_send2web/nam/ecmag_sync_nam.ecf mag/mag_send2web/nam/ecmag_sync_nam_hires.ecf mag/mag_send2web/wave/ecmag_sync_wave_wna.ecf mag/mag_send2web/wave/ecmag_sync_wave_enp.ecf mag/mag_send2web/wave/ecmag_sync_wave.ecf mag/mag_send2web/gfs/ecmag_sync_gfs.ecf admin/mag/mag_cleanup.ecf admin/mag/ecmag_maintain.ecf admin/mag/mag_requeue.ecf	
--	--

Web updates

File	Update #
docs/faq.pdf docs/MAG_Planned_Updates.pdf docs/MAG_Users_Manual.pdf	v3.5.0 updates
model-guidance-model-parameter_body.php	1
mag_functions.php	1
MAG.xml	1

Known Issues

Reprocessing of Tropical model files

A situation arises with the Tropical model processing that can result in storm model data being reprocessed, so a storm would reappear on MAG after it has been purged.

The GEMPAK grid files (in /com/nawips/prod) are retained for 10 days. The MAG status files (in /com/mag/prod/status) are purged by exmag_cleanup_prod.sh.ecf after 3 days. These status files are used by the MAG_processor.pl and MAG_processor_hurr.pl to determine which cycles/forecast hours have already been processed. Since the MAG processor script will always try to process the last two cycles that exist (it doesn't check how old they are), if the GEMPAK files are still there after the status files have been purged, it will try to reprocess the last two cycles.

The easiest solution is to update the cleanup script to keep 10 days of all status files. Or only the hurricane model type status files (hwrp-full, hwrp-nested, ghm-full, and ghm-nested), since those are the only ones that are run irregularly. Or the cleanup script could access the same table used to purge the /com/nawips/prod directory to match the cleanup of the status files to the GEMPAK files.

Page cache issue

There was a typo in get-banner.php that supposed to turn off the in-browser cache. As the result of that, all images are been cached in client browser. For example if there is an update to the same image from RZDM, the Web browser will still show old image until cache expired or manually refresh the page. This issue will apply across all pages include individual image display and image looping.